

REMARKS/ARGUMENTS

The Examiner's Action of March 23, 2006, has been received and reviewed by counsel for Assignee. In that Action the Examiner reported examination of claims 1-49.

The Examiner noted that a missing Japanese reference was omitted from the Information Disclosure Statement. With this amendment a Supplemental IDS is being submitted to include a copy of that reference.

The Examiner also requested changes to the Abstract. By this response counsel has revised the wording of the Abstract in a manner which should meet the Examiner's concerns.

The Examiner has rejected some of the claims under 35 U.S.C. § 112. These rejections are discussed next. The Examiner rejected claims 1 and 10 as being ambiguous. By this response counsel has clarified that it is the amount of suppression of the radial component and the tangential component which gradually increases, not the amount of the component. With regard to claim 30, the Examiner noted that a phrase lacked antecedent basis. The claim has been amended to overcome this rejection. Claim 31 was rejected as unclear. By this response the claim has been amended to clarify the issue noted by the Examiner. Claims 46 and 47 were rejected as including commas. These have been changed to decimal points to match conventional U.S. practice.

With regard to the prior art, the Examiner has rejected claims 30, 33-35, 40-42, 48 and 49 under 35 U.S.C. § 103 as unpatentable over *Kuchel*, U.S. Patent 4,872,755. *Kuchel* in column 8, at lines 14-16, teaches the insertion of a rotating halfwave plate into one arm of a display device 40 as shown in Figures 1 or 4. This rotating halfwave plate functions to generate an optical phase difference in a range of between 0 and 4π with a complete rotation of the halfwave plate. As a result, rotation of the halfwave plate is used for generating an adjustable phase difference in the optical delay section of the interferometer.

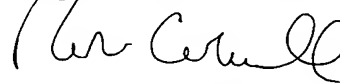
In contrast, in the embodiments illustrated in Applicant's Figures 6, 8 and 10, elements 51, 62, and 69, respectively, produce a given polarization of the beam of measuring light at each instant of time. If the element is rotated, then a characteristic results as illustrated in Figure 4 of Applicant's specification. According to such embodiments of the present invention, the measurements are performed using this "averaged" light. Therefore, the polarization direction is rotated while a measurement is recorded.

Amended claim 30 reflects this particular operation in the sense that claim 30 requires a step of "detecting measuring light having interacted with the substrate at plural orientations of the polarization direction about the optical axis." The claim further requires "interferometrically determining a surface map of the optical surface based on the detected measuring light." *Kuchel* does not teach or suggest a method that includes these steps. Use of these steps would require a suggestion that interferometric measurements are recorded while the polarization direction is rotated, in contrast to *Kuchel's* teaching.

Claims 48 and 49 were also rejected because the Examiner noted that the lens of the system did not have structural differences compared to the prior art. By this response counsel has rephrased each of these claims to become a method of manufacturing an optical system, thereby directing the claim to the novel aspects.

In view of the foregoing, counsel for Assignee believes all claims now pending in this application are in condition for allowance. If the Examiner believes a telephone conference would expedite prosecution of this application, he is invited to telephone the undersigned at 650-324-6303 (direct).

Respectfully submitted,



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